WHAT IS CLAIMED IS:

1. A method for performing OTDR measurement in an optical transmission system including a first terminal station and a second terminal station,

wherein OTDR signal light is transmitted from an OTDR provided in the first terminal station to the second terminal station, in which the OTDR signal light is Raman amplified by using main signal light of the optical transmission system as pump light.

2. The method as claimed in claim 1, wherein the OTDR signal light is Raman amplified by using the main signal light that is transmitted from the first terminal station.

3. The method as claimed in claim 1, the OTDR signal light is Raman amplified by using the main signal light transmitted from the second terminal station.

4. The method as claimed in claim 1, wherein the main signal light used as the pump light for the OTDR signal light is Raman amplified by using pump light, transmitted from the first

terminal station, that is usually used for Raman amplifying main signal light transmitted from the second terminal station to the first terminal station.

5. The method as claimed in claim 1, wherein the main signal light used as the pump light for the OTDR signal light is Raman amplified by using pump light, transmitted from the second terminal station, that is usually used for Raman amplifying main signal light transmitted from the first terminal station to the second terminal station.

6. The method as claimed in claim 1, wherein a wavelength band of the main signal light of the optical transmission system is 1550 nm band, and a wavelength band of the OTDR signal light is 1650 nm band.

7. A method for performing OTDR measurement in an optical transmission system including a first terminal station and a second terminal station,

wherein OTDR signal light is transmitted from an OTDR provided in the first terminal station to the second terminal station, in which the OTDR signal light is Raman amplified by using pump light

for main signal light of the optical transmission system.

8. The method as claimed in claim 7, wherein a wavelength band of the pump light for the main signal light in the optical transmission system is 1450 nm band or 1480 nm band, and a wavelength band of the OTDR signal light is 1550 nm band.

9. A method for performing OTDR measurement in an optical transmission system including a first terminal station and a second terminal station,

wherein OTDR signal light is transmitted from an OTDR provided in the first terminal station to the second terminal station, in which the OTDR signal light is remote pump amplified and Raman amplified by using pump light for remote pump amplification that is transmitted from the first terminal station.

10. The method as claimed in claim 9, wherein a wavelength band of each of main signal light in the optical transmission system and the OTDR signal light is 1550 nm band.

11. A terminal station apparatus in an optical transmission system, the terminal station apparatus including a transmitting apparatus for transmitting main signal light to a first optical transmission line and a receiving apparatus for receiving main signal light from a second optical transmission line,

the terminal station apparatus comprising a part for transmitting the main signal light from the transmitting apparatus to the second optical transmission line.

12. The terminal station apparatus as claimed in claim 11, wherein the part includes an optical switch provided in the transmitting apparatus side, and a coupler provided in the receiving apparatus side.

13. A terminal station apparatus in an optical transmission system, the terminal station apparatus including a transmitting apparatus for transmitting main signal light to a first optical transmission line and a receiving apparatus for receiving main signal light from a second optical transmission line,

the terminal station apparatus comprising:

a Raman amplification light source that is provided in the receiving apparatus side and that is used for Raman amplifying the main signal light on the second optical transmission line; and

a part for transmitting light that is emitted from the Raman amplification light source to the first optical transmission line.

14. The terminal station apparatus as claimed in claim 13, wherein the part includes an optical switch provided in the receiving apparatus side, and a coupler provided in the transmitting apparatus side.

15. An optical transmission system comprising a first terminal station apparatus and a second terminal station apparatus,

wherein the first terminal station apparatus includes a transmitting apparatus for transmitting main signal light to a first optical transmission line, and a receiving apparatus for receiving main signal light from a second optical transmission line,

the second terminal station apparatus includes a transmitting apparatus for transmitting main signal light to the second optical transmission line, and a receiving apparatus for receiving main signal light from the first optical transmission line,

the optical transmission system includes a part for transmitting main signal light transmitted from the transmitting apparatus in the first terminal station apparatus to the second optical transmission line.

16. The optical transmission system as claimed in claim 15, wherein the part includes an optical switch provided in the transmitting apparatus side in the first terminal station, and a coupler provided in the receiving apparatus side in the first terminal station side.

17. An optical transmission system comprising a first terminal station apparatus and a second terminal station apparatus,

wherein the first terminal station apparatus includes a transmitting apparatus for transmitting main signal light to a first optical transmission line, and a receiving apparatus for receiving main signal light from a second optical transmission line,

the second terminal station apparatus includes a transmitting apparatus for transmitting main signal light to the second optical transmission line, and a receiving apparatus for receiving main signal light from the first optical transmission line,

the optical transmission system includes a part for transmitting light that is emitted from a Raman amplification light source provided in the receiving apparatus side in the first terminal station apparatus to the first optical transmission line.

18. The optical transmission system as claimed in claim 17, wherein the part includes an optical switch provided in the receiving apparatus side in the first terminal station, and a coupler provided in the transmitting apparatus side in the first terminal station side.